3/23/01

TOTAL

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AT 17:53:26 ON 12 SEP 2001
FILE USPATFULL ENTERED AT 17:53:26 ON 12 SEP 2001
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SESSION RESUMED IN FILE 'USPATFULL, BIOSIS, MEDLINE'

CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 17:53:26 ON 12 SEP 2001

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FILE 'MEDLINE' ENTERED AT 17:53:26 ON 12 SEP 2001

COST IN U.S. DOLLARS SINCE FILE

> ENTRY SESSION

FULL ESTIMATED COST

11.62 11.77

=> s cytochrome(w) c

53626 CYTOCHROME (W) C

=> s 19 and 12

0 L9 AND L2 L10

=> d 15 1-6 bib, ab

L5 ANSWER 1 OF 6 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2001:309278 BIOSIS

DN PREV200100309278

TΙ Genetic engineering of live rabies vaccines.

ΑU Morimoto, Kinjiro; McGettigan, James P.; Foley, Heather D.; Hooper, D. Craig; Dietzschold, Bernhard; Schnell, Matthias J. (1)

CS (1) Dorrance H. Hamilton Laboratories, Center for Human Virology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA, 19107: matthias.schnell@mail.tju.edu USA

SO Vaccine, (14 May, 2001) Vol. 19, No. 25-26, pp. 3543-3551. print. ISSN: 0264-410X.

DТ Article

LA English

SLEnglish

Rabies virus is not a single entity but consists of a wide array AB of variants that are each associated with different host species. These viruses differ greatly in the antigenic makeup of their G proteins, the primary determinant of pathogenicity and major inducer of protective immunity. Due to this diversity, existing rabies vaccines have largely been targeted to individual animal species. In this report, a novel approach to the development of rabies vaccines using genetically modified, reverse-engineered live attenuated rabies viruses is described. This approach entails the engineering of vaccine rabies virus containing G proteins from virulent strains and modification of the G protein to further reduce pathogenicity. Strategies employed included exchange of the arginine at position 333 for glutamine and modification of the cytoplasmic domain. The recombinant viruses obtained were non-neuroinvasive when administered via a peripheral route. The ability to confer protective immunity depended largely upon conservation of the G protein antiqenic structure between the

vaccine and challenge virus, as well as on the route of immunization.

- L5 ANSWER 2 OF 6 BIOS COPYRIGHT 2001 BIOSIS
- AN 2000:441944 BIOSIS
- DN PREV200000441944
- TI Reinvestigation of the role of the rabies virus glycoprotein in viral pathogenesis using a reverse genetics approach.
- AU Morimoto, Kinjiro; Foley, Heather D.; McGettigan, James P.; Schnell, Matthias J.; Dietzschold, Bernhard (1)
- CS (1) Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA, 19107 USA
- SO Journal of Neurovirology, (October, 2000) Vol. 6, No. 5, pp. 373-381. print.
  ISSN: 1355-0284.
- DT Article
- LA English
- SL English

in

AB The rabies virus glycoprotein (G) gene of the highly neuroinvasive and neurotropic strains SHBRV-18, CVS-N2c, and CVS-B2c was introduced into the non-neuroinvasive and less neurotropic SN-10 strain to provide further insight into the role of G in the pathogenesis of rabies. Phenotypic analyses of the recombinant viruses revealed, as expected, that the neurotropism of a particular rabies virus strain was a function of its G. Nevertheless, the pathogenicity of the recombinant viruses was, in every case, markedly lower than that of the wild-type viruses suggesting that while the G dictates neurotropism, other viral attributes are also important in pathogenesis. The low pathogenicity of the recombinant viruses is at least in part due to a strong increase in transcription activity. On the other hand, the production of infectious virus by the R-SHB18 recombinant virus-infected cells was significantly delayed by comparison with SHBRV-18 wild-type virus infected-cells. Replacement of the R-SHB18 G cytoplasmic domain, transmembrane domain, and stem region with its SN-10 G counterparts neither results in a significant increase

budding efficiency nor an increase in pathogenicity. These results suggest

that an optimal match of the cytoplasmic domain of G with the matrix protein may not be sufficient for maximal virus budding efficiency, which is evidently a major factor of virus pathogenicity. Our studies indicate that to maintain pathogenicity, the interactions between various structural elements of **rabies** virus must be highly conserved and the expression of viral proteins, in particular the G protein, must be strictly controlled.

- L5 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2001 BIOSIS
- AN 1996:322441 BIOSIS
- DN PREV199699044797
- TI Characterization of a unique variant of bat rabies virus responsible for newly emerging human cases in North America.
- AU Morimoto, Kinjiro; Patel, Menal; Corisdeo, Susanne; Hooper, D. Craig; Fu, Zhen Fang; Rupprecht, Charles E.; Koprowski, Hilary; Dietzschold, Bernhard
  - (1)
- CS (1) Center Neurovirol., Dep. Microbiol. Immunol., Thomas Jefferson Univ., 1020 Locust Street, Philadelphia, PA 19107-6799 USA
- SO Proceedings of the National Academy of Sciences of the United States of America, (1996) Vol. 93, No. 11, pp. 5653-5658.
  ISSN: 0027-8424.
- DT Article
- LA English
- AB The silver-haired bat variant of rabies virus (SHBRV) has been identified as the etiological agent of a number of recent human rabies cases in the United States that are unusual in not having been associated with any known history of conventional exposure. Comparison of the different biological and biochemical properties of

isolates of this virus with those of a coyote street shies virus (COSRV) reveal that there are unique feature ssociated with SHBRV. In vitro studies showed that, while the susceptibility of neuroblastoma cells to infection by both viruses was similar, the infectivity of SHBRV was much higher than that of COSRV in fibroblasts (BHK-21) and epithelial cells (MA-104), particularly when these cells

were

kept, at 34 degree C. At this temperature, low pH-dependent fusion and cell-to-cell spread of virus is seen in BHK-21 cells infected with SHBRV but not with COSRV. It appears that SHBRV may possess an unique cellular tropism and the ability to replicate at lower temperature, allowing a

more

effective local replication in the dermis. This hypothesis is supported

by

in vivo results which showed that while SHBRV is less neurovirulent than COSRV when administered via the intramuscular or intranasal routes, both viruses are equally neuroinvasive if injected intracranially or intradermally. Consistent with the above findings, the amino acid sequences of the glycoproteins of SHBRV and COSRV were found to have substantial differences, particularly in the region that contains the putative toxic loop, which are reflected in marked differences in their antigenic composition. Nevertheless, an experimental rabies vaccine based on the Pittman Moore vaccine strain protected mice equally well from lethal doses of SHBRV and COSRV, suggesting that currently used vaccines should be effective in the postexposure prophylaxis of rabies due to SHBRV.

- L5 ANSWER 4 OF 6 MEDLINE
- AN 2001494966 MEDLINE
- DN 21247205 PubMed ID: 11348722
- TI Genetic engineering of live rabies vaccines.
- AU Morimoto K; McGettigan J P; Foley H D; Hooper D C; Dietzschold B; Schnell M J
- CS Department of Microbiology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107, USA.
- NC AI 44340 (NIAID)

AI 45097 (NIAID)

- SO VACCINE, (2001 May 14) 19 (25-26) 3543-51.

  Journal code: X6O; 8406899. ISSN: 0264-410X.
- CY England: United Kingdom
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- EM 200109
- ED Entered STN: 20010910

Last Updated on STN: 20010910

Entered Medline: 20010906

AΒ Rabies virus is not a single entity but consists of a wide array of variants that are each associated with different host species. These viruses differ greatly in the antigenic makeup of their G proteins, the primary determinant of pathogenicity and major inducer of protective immunity. Due to this diversity, existing rabies vaccines have largely been targeted to individual animal species. In this report, a novel approach to the development of rabies vaccines using genetically modified, reverse-engineered live attenuated rabies viruses is described. This approach entails the engineering of vaccine rabies virus containing G proteins from virulent strains and modification of the G protein to further reduce pathogenicity. Strategies employed included exchange of the arginine at position 333 for glutamine and modification of the cytoplasmic domain. The recombinant viruses obtained were non-neuroinvasive when administered via a peripheral route. The ability to confer protective immunity depended largely upon conservation of the G protein antigenic structure between

the

vaccine and challenge virus, as well as on the route of immunization.

L5 ANSWER 5 OF 6 M INE

AN 2000479977

DN 20486404 PubMed ID: 11031690

MEDITAL

TI Reinvestigation of the role of the rabies virus glycoprotein in viral pathogenesis using a reverse genetics approach.

AU Morimoto K; Foley H D; McGettigan J P; Schnell M J; Dietzschold B

CS Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA 19107, USA.

NC AI 41544 (NIAID) AI 45097 (NIAID)

SO JOURNAL OF NEUROVIROLOGY, (2000 Oct) 6 (5) 373-81. Journal code: CME. ISSN: 1355-0284.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200101

ED Entered STN: 20010322

Last Updated on STN: 20010322

Entered Medline: 20010118

The rabies virus glycoprotein (G) gene of the highly AB neuroinvasive and neurotropic strains SHBRV-18, CVS-N2c, and CVS-B2c was introduced into the non-neuroinvasive and less neurotropic SN-10 strain to provide further insight into the role of G in the pathogenesis of rabies. Phenotypic analyses of the recombinant viruses revealed, as expected, that the neurotropism of a particular rabies virus strain was a function of its G. Nevertheless, the pathogenicity of the recombinant viruses was, in every case, markedly lower than that of the wild-type viruses suggesting that while the G dictates neurotropism, other viral attributes are also important in pathogenesis. The low pathogenicity of the recombinant viruses is at least in part due to a strong increase in transcription activity. On the other hand, the production of infectious virus by the R-SHB18 recombinant virus-infected cells was significantly delayed by comparison with SHBRV-18 wild-type virus infected-cells. Replacement of the R-SHB18 G cytoplasmic domain, transmembrane domain, and stem region with its SN-10 G counterparts neither results in a significant increase

budding efficiency nor an increase in pathogenicity. These results suggest

that an optimal match of the cytoplasmic domain of G with the matrix protein may not be sufficient for maximal virus budding efficiency, which is evidently a major factor of virus pathogenicity. Our studies indicate that to maintain pathogenicity, the interactions between various structural elements of **rabies** virus must be highly conserved and the expression of viral proteins, in particular the G protein, must be strictly controlled.

- L5 ANSWER 6 OF 6 MEDLINE
- AN 96224342 MEDLINE
- DN 96224342 PubMed ID: 8643632
- TI Characterization of a unique variant of bat rabies virus responsible for newly emerging human cases in North America.
- AU Morimoto K; Patel M; Corisdeo S; Hooper D C; Fu Z F; Rupprecht C E; Koprowski H; Dietzschold B
- CS The Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA 19107-6799, USA.
- NC AI-09706 (NIAID)
- SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1996 May 28) 93 (11) 5653-8.

  Journal code: PV3; 7505876. ISSN: 0027-8424.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English

FS Priority Journals

EM 199607

ED Entered STN: 19960726

Last Updated on STN: 19970203 Entered Medline: 19960717

The silver-haired bat variant of **rabies** virus (SHBRV) has been identified as the etiological agent of a number of recent human **rabies** cases in the United States that are unusual in not having been associated with any known history of conventional exposure. Comparison of the different biological and biochemical properties of isolates of this virus with those of a coyote street **rabies** virus (COSRV) revealed that there are unique features associated with SHBRV. In vitro studies showed that, while the susceptibility of neuroblastoma cells to infection by both viruses was similar, the infectivity of SHBRV was much higher than that of COSRV in fibroblasts (BHK-21) and epithelial cells (MA-104), particularly when these cells

were

kept at 34 degrees C. At this temperature, low pH-dependent fusion and cell-to-cell spread of virus is seen in BHK-21 cells infected with SHBRV but not with COSRV. It appears that SHBRV may possess an unique cellular tropism and the ability to replicate at lower temperature, allowing a

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effective local replication in the dermis. This hypothesis is supported

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=> s neuroinvasive

L11 187 NEUROINVASIVE

=> s rabies

L12 14249 RABIES

=> s vaccine

L13 131470 VACCINE

=> s 111 and 112 and 113

L14 4 L11 AND L12 AND L13

=> d 114 1-4 bib, ab

L14 ANSWER 1 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2001:309278 BIOSIS

DN PREV200100309278

TI Genetic engineering of live rabies vaccines.

AU Morimoto, Kinjiro; McGettigan, James P.; Foley, Heather D.; Hooper, D. Craig; Dietzschold, Bernhard; Schnell, Matthias J. (1)

CS (1) Dorrance H. Hamilton Laboratories, Center for Human Virology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA, 19107:

matthias.schnell@maintju.edu USA Vaccine, (14 May, 2 Vol. 19, No. 25-26, pp. 3543 51. print. ISSN: 0264-410X.

DT Article

LA English

SL English

AB Rabies virus is not a single entity but consists of a wide array of variants that are each associated with different host species. These viruses differ greatly in the antigenic makeup of their G proteins, the primary determinant of pathogenicity and major inducer of protective immunity. Due to this diversity, existing rabies vaccines have largely been targeted to individual animal species. In this report, a novel approach to the development of rabies vaccines using genetically modified, reverse-engineered live attenuated rabies viruses is described. This approach entails the engineering of vaccine rabies virus containing G proteins from virulent strains and modification of the G protein to further reduce pathogenicity.

Strategies employed included exchange of the arginine at position 333 for glutamine and modification of the cytoplasmic domain. The recombinant viruses obtained were non-neuroinvasive when administered via a peripheral route. The ability to confer protective immunity depended largely upon conservation of the G protein antigenic structure between

the

vaccine and challenge virus, as well as on the route of immunization.

L14 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1996:322441 BIOSIS

DN PREV199699044797

TI Characterization of a unique variant of bat **rabies** virus responsible for newly emerging human cases in North America.

AU Morimoto, Kinjiro; Patel, Menal; Corisdeo, Susanne; Hooper, D. Craig; Fu, Zhen Fang; Rupprecht, Charles E.; Koprowski, Hilary; Dietzschold,

Bernhard

(1)

- CS (1) Center Neurovirol., Dep. Microbiol. Immunol., Thomas Jefferson Univ., 1020 Locust Street, Philadelphia, PA 19107-6799 USA
- SO Proceedings of the National Academy of Sciences of the United States of America, (1996) Vol. 93, No. 11, pp. 5653-5658.
  ISSN: 0027-8424.

DT Article

LA English

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```
L14 ANSWER 3 OF 4 MEDLINE
```

AN 2001494966 MEDLINE

DN 21247205 PubMed ID: 11348722

TI Genetic engineering of live rabies vaccines.

AU Morimoto K; McGettigan J P; Foley H D; Hooper D C; Dietzschold B; Schnell M J

CS Department of Microbiology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107, USA.

NC AI 443.40 (NIAID)

AI 45097 (NIAID)

SO VACCINE, (2001 May 14) 19 (25-26) 3543-51.

Journal code: X6O; 8406899. ISSN: 0264-410X.

CY England: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200109

ED Entered STN: 20010910

Last Updated on STN: 20010910

Entered Medline: 20010906

Rabies virus is not a single entity but consists of a wide array of variants that are each associated with different host species. These viruses differ greatly in the antigenic makeup of their G proteins, the primary determinant of pathogenicity and major inducer of protective immunity. Due to this diversity, existing rabies vaccines have largely been targeted to individual animal species. In this report, a novel approach to the development of rabies vaccines using genetically modified, reverse-engineered live attenuated rabies viruses is described. This approach entails the engineering of vaccine rabies virus containing G proteins from virulent strains and modification of the G protein to further reduce

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Strategies employed included exchange of the arginine at position 333 for glutamine and modification of the cytoplasmic domain. The recombinant viruses obtained were non-neuroinvasive when administered via a peripheral route. The ability to confer protective immunity depended largely upon conservation of the G protein antigenic structure between

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vaccine and challenge virus, as well as on the route of immunization.

L14 ANSWER 4 OF 4 MEDLINE

AN 96224342 MEDLINE

DN 96224342 PubMed ID: 8643632

TI Characterization of a unique variant of bat **rabies** virus responsible for newly emerging human cases in North America.

AU Morimoto K; Patel M; Corisdeo S; Hooper D C; Fu Z F; Rupprecht C E; Koprowski H; Dietzschold B

CS The Center for Neurovirology, Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA 19107-6799, USA.

NC AI-09706 (NIAID)

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1996 May 28) 93 (11) 5653-8.

Journal code: PV3; 7505876. ISSN: 0027-8424.

CY United States

Journal; Article; (MRNAL ARTICLE) DT English LΑ Priority Journals FS 199607 F.M ED Entered STN: 19960726 Last Updated on STN: 19970203 Entered Medline: 19960717 The silver-haired bat variant of rabies virus (SHBRV) has been AB identified as the etiological agent of a number of recent human rabies cases in the United States that are unusual in not having been associated with any known history of conventional exposure. Comparison of the different biological and biochemical properties of isolates of this virus with those of a coyote street rabies virus (COSRV) revealed that there are unique features associated with SHBRV. In vitro studies showed that, while the susceptibility of neuroblastoma cells to infection by both viruses was similar, the infectivity of SHBRV was much higher than that of COSRV in fibroblasts (BHK-21) and epithelial cells (MA-104), particularly when these cells were kept at 34 degrees C. At this temperature, low pH-dependent fusion and cell-to-cell spread of virus is seen in BHK-21 cells infected with SHBRV but not with COSRV. It appears that SHBRV may possess an unique cellular tropism and the ability to replicate at lower temperature, allowing a more effective local replication in the dermis. This hypothesis is supported by vaccine based on the Pittman Moore vaccine strain

in vivo results which showed that while SHBRV is less neurovirulent than COSRV when administered via the intramuscular or intranasal routes, both viruses are equally neuroinvasive if injected intracranially or intradermally. Consistent with the above findings, the amino acid sequences of the glycoproteins of SHBRV and COSRV were found to have substantial differences, particularly in the region that contains the putative toxic loop, which are reflected in marked differences in their antigenic composition. Nevertheless, an experimental rabies protected mice equally well from lethal doses of SHBRV and COSRV, suggesting that currently used vaccines should be effective in the postexposure prophylaxis of rabies due to SHBRV.

=> s dietzschold

39 DIETZSCHOLD

=> s 112 and 115

27 L12 AND L15

=> s 116 and 113

24 L16 AND L13

=> 1 117 and 114

L IS NOT A RECOGNIZED COMMAND The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> d 117 1-10 bib,

L17 ANSWER 1 OF 24 USPATFULL ΑN 2001:152489 USPATFULL

TΙ Replication-defective adenovirus human type 5 recombinant as a

```
vaccine carrier
       Ertl, Hildegund C., Villanova, PA, United State
IN
       Wilson, James M., Gladwyne, PA, United States
PΑ
       The Wistar Institute of Anatomy and Biology, Philadelphia, PA, United
       States (U.S. corporation)
       The Trustees of the University of Pennsylvania, Philadelphia, PA,
United
       States (U.S. corporation)
       US 6287571
                               20010911
PI
       US 1999-347060
                               19990702 (9)
ΑI
       Continuation of Ser. No. US 973233, now patented, Pat. No. US 6019978
RLI
       Continuation of Ser. No. US 1995-461837, filed on 5 Jun 1995, now
       patented, Pat. No. US 5698202
PRAI
       US 1995-78
                        19950608 (60)
       Utility
DT
       GRANTED
FS
EXNAM
       Primary Examiner: Salimi, Ali R.
LREP
       Howson and Howson
CLMN
       Number of Claims: 4
ECL
       Exemplary Claim: 1
DRWN
       24 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 1077
    ANSWER 2 OF 24 USPATFULL
L17
AN
       2001:82315 USPATFULL
ΤI
       Recombinant multivalent viral vaccine
IN
       Scott, Fred W., Brooktondale, NY, United States
       Ngichabe, Christopher K., Kikuyu, Kenya
       Hu, Liangbiao, Baltimore, MD, United States
       Esposito, Joseph J., Atlanta, GA, United States
       Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S.
PA
       corporation)
       The United States of America as represented by the Department of Health
       and Human Services, Washington, DC, United States (U.S. government)
ΡI
       US 6241989
                          В1
                               20010605
ΑI
       US 1995-552369
                               19951103 (8)
RLI
       Continuation-in-part of Ser. No. US 1994-190789, filed on 27 Jan 1994,
       now abandoned Continuation of Ser. No. US 1991-726609, filed on 9 Jul
       1991, now abandoned
DT
       Utility
       Granted
       Primary Examiner: Scheiner, Laurie
EXNAM
       Hodgson, Russ, Andrews, Woods & Goodyear LLP
LREP
       Number of Claims: 21
CLMN
ECL
       Exemplary Claim: 1
       9 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1211
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 3 OF 24 USPATFULL
ΑN
       2001:14613 USPATFULL
ΤI
       Synthetic peptides for rubella vaccine
IN
       Chong, Pele, Richmond Hill, Canada
       Gillam, Shirley, Vancouver, Canada
       Ou, Dawei, Vancouver, Canada
       Tingle, Aubrey, Vancouver, Canada
PA
       Connaught Laboratories Limited, Toronto, Canada (non-U.S. corporation)
PI
       US 6180758
                          В1
                               20010130
ΑI
       US 1997-834130
                               19970414 (8)
RLI
       Continuation of Ser. No. US 1994-256747, filed on 6 Oct 1994, now
       patented, Pat. No. US 6037448
DT
       Utility
       Granted
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EXNAM

LREP

Primary Examiner: Stucker, Jeffrey

Sim & McBurney

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CLMN
       Number of Claims:
ECL
       Exemplary Claim:
DRWN
       10 Drawing Figure (s); 8 Drawing Page(s)
LN.CNT 1559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L17
     ANSWER 4 OF 24 USPATFULL
ΑN
       2000:134588 USPATFULL
ΤI
       Viral ribonucleocapsid as an immunological enhancer
IN
       Hooper, Douglas Craig, Medford, NJ, United States
       Dietzschold, Bernhard, Newtown Square, PA, United States
       Koprowski, Hilary, Wynnewood, PA, United States
PA
       Thomas Jefferson University, Philadelphia, PA, United States (U.S.
       corporation)
PΙ
       US 6129921
                               20001010
ΑI
       US 1995-567713
                               19951205 (8)
       Continuation of Ser. No. US 1994-230158, filed on 19 Apr 1994, now
RLI
DT
       Utility
       Granted
FS
EXNAM
      Primary Examiner: Allen, Marianne P.; Assistant Examiner: Zeman, Mary K
       Seidel, Gonda, Lavorgna & Monaco, PC
CLMN
       Number of Claims: 4
       Exemplary Claim: 1
ECL
       5 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 430
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 5 OF 24 USPATFULL
L17
       2000:37390 USPATFULL
ΑN
TI
       Polypeptides fused with alfalfa mosaic virus or ilarvirus capsid
       proteins
       Koprowski, Hilary, Wynnewood, PA, United States
IN
       Yusibov, Vidadi, Havertown, PA, United States
       Hooper, Douglas Craig, Medford, NJ, United States
       Modelska, Anna, Wynnewood, PA, United States
PA
       Thomas Jefferson University, Philadelphia, PA, United States (U.S.
       corporation)
PΙ
       US 6042832
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ΑI
       US 1996-704856
                               19960828 (8)
       Utility
DT
FS
       Granted
EXNAM Primary Examiner: Stucker, Jeffrey; Assistant Examiner: Bui, Phuong T.
LREP
       Volpe and Koenig, PC
CLMN
       Number of Claims: 12
ECL
       Exemplary Claim: 1
       10 Drawing Figure(s); 9 Drawing Page(s)
DRWN
LN.CNT 1017
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L17
     ANSWER 6 OF 24 USPATFULL
ΑN
       2000:31521 USPATFULL
ΤI
       Synthetic peptides for a rubella vaccine
IN
       Chong, Pele, Richmond Hill, Canada
       Gillam, Shirley, Vancouver, Canada
       Ou, Dawei, Vancouver, Canada
       Tingle, Aubrey, Vancouver, Canada
PA
       Connaught Laboratories Limited, North York, Canada (non-U.S.
       corporation)
ΡI
       US 6037448
                               20000314
       WO 9314206 19930722
ΑI
       US 1994-256747
                               19941006 (8)
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19930120

19941006 PCT 371 date 19941006 PCT 102(e) date

WO 1993-CA14

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PRAI
       GB 1992-1139
                           19920120
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Nucker, Christine M.; Assistant Examiner: Stucker,
LREP
       Sim & McBurney
CLMN
       Number of Claims: 19
ECL
       Exemplary Claim: 1
DRWN
       10 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 2538
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L17
     ANSWER 7 OF 24 USPATFULL
ΑN
       2000:18041 USPATFULL
ΤI
       Vaccine against rabies and process for preparation
       thereof
IN
       Lathe, Richard, Strasbourg, France
       Kieny, Marie-Paule, Strasbourg, France
       Drillien, Robert, Strasbourg, France
       Lecocq, Jean-Pierre, Reichsteet, France
       Transgene S.A., Strasbourg, France (non-U.S. corporation)
PA
PΙ
       US 6024953
                               20000215
ΑI
       US 1994-231457
                               19940421 (8)
       Continuation of Ser. No. US 1993-38052, filed on 29 Mar 1993, now
RLI
       abandoned which is a continuation of Ser. No. US 1991-759138, filed on
       11 Sep 1991, now abandoned which is a continuation of Ser. No. US
       1989-378801, filed on 11 Jul 1989, now abandoned which is a
continuation
       of Ser. No. US 1985-829144, filed on 24 Dec 1985, now abandoned
PRAI
       FR 1984-6499
                           19840425
       WO 1985-FR96
                           19850424
DT
       Utility
       Granted
       Primary Examiner: Degen, Nancy; Assistant Examiner: Schwartzman, Robert
EXNAM
LREP
       Burns, Doane, Swecker & Mathis, L.L.P.
CLMN
       Number of Claims: 9
ECL
       Exemplary Claim: 7
       12 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 709
L17
    ANSWER 8 OF 24 USPATFULL
ΑN
       2000:12441 USPATFULL
ΤI
       Replication-defective adenovirus human type 5 recombinant as a
     vaccine carrier
IN
       Ertl, Hildegund C. J., Villanova, PA, United States
       Wilson, James M., Gladwyne, PA, United States
PΑ
       The Wistar Institute of Anatomy and Biology, Philadelphia, PA, United
       States (U.S. corporation)
       The Trustees of the University of Pennsylvania, Philadelphia, PA,
United
       States (U.S. corporation)
PΙ
       US 6019978
                                20000201
       WO 9639178 19961212
       US 1997-973223
ΑI
                               19971203 (8)
       WO 1996-US9495
                               19960605
                               19971203
                                         PCT 371 date
                               19971203 PCT 102(e) date
RLI
       Continuation-in-part of Ser. No. US 1995-461837, filed on 5 Jun 1995,
       now patented, Pat. No. US 5698202
PRAI
       US 1995-78
                           19950608 (60)
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Mosher, Mary E.; Assistant Examiner: Salimi, Ali R.
```

LREP

CLMN

Howson and Howson

Number of Claims: 6

```
ECL
       Exemplary Claim:
                            6 Drawing Page(s)
       4 Drawing Figure (
LN.CNT 1435
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L17
    ANSWER 9 OF 24 USPATFULL
       1998:143659 USPATFULL
AN
TΙ
       Method for generating an immunogenic T cell response protective against
IN
       Heber-Katz, Ellen, Philadelphia, PA, United States
       Dietzschold, Bernhard, Newtown Square, PA, United States
PA
       The Wistar Institute, Philadelphia, PA, United States (U.S.
corporation)
ΡI
       US 5837249
                               19981117
ΑI
       US 1993-139609
                               19931020 (8)
RLI
       Continuation of Ser. No. US 1992-868946, filed on 15 Apr 1992, now
       abandoned which is a continuation-in-part of Ser. No. US 1991-685459,
       filed on 12 Apr 1991, now abandoned which is a continuation of Ser. No.
       US 1987-47443, filed on 8 May 1987, now abandoned which is a
       continuation-in-part of Ser. No. US 1985-725087, filed on 19 Apr 1985,
       now abandoned
DΤ
       Utility
       Granted
       Primary Examiner: Woodward, Michael P.
EXNAM
       Banner & Witcoff, Ltd.
       Number of Claims: 21
CLMN
       Exemplary Claim: 1
       9 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 1114
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 10 OF 24 USPATFULL
AN
       1998:134638 USPATFULL
TI
       Vaccine against rabies and process for preparation
       thereof
IN
       Lathe, Richard, Strasbourg, France
       Kieny, Marie-Paule, Strasbourg, France
       Drillien, Robert, Strasbourg, France
       Lecocq, Jean-Pierre, Reichsteet, France
PΑ
       Transgene S.A., Strasbourg, France (non-U.S. corporation)
ΡI
       US 5830477
                               19981103
ΑI
       US 1995-480736
                               19950607 (8)
RLI
       Continuation of Ser. No. US 1994-231457, filed on 21 Apr 1994 which is
       continuation of Ser. No. US 1993-38052, filed on 29 Mar 1993, now
       abandoned which is a continuation of Ser. No. US 1991-759138, filed on
       11 Sep 1991, now abandoned which is a continuation of Ser. No. US
       1989-378801, filed on 11 Jul 1989, now abandoned which is a
       continuation-in-part of Ser. No. US 1985-829144, filed on 24 Dec 1985,
       now abandoned
PRAI
       FR 1984-6499
                           19840425
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Degen, Nancy
LREP
       Burns, Doane, Swecker & Mathis, L.L.P.
CLMN
       Number of Claims: 36
ECL
       Exemplary Claim: 1
DRWN
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=> s hiv or (human immunodeficiency virus)

LN.CNT 988

L18 245429 HIV OR (HUMAN IMMUNODEFICIENCY VIRUS)

14 Drawing Figure(s); 14 Drawing Page(s)